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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/423,484	10/04/2000	David John Aarons	P9153	6794

7590 12/05/2001

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EXAMINER

LEE, WILSON

ART UNIT	PAPER NUMBER
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2821

DATE MAILED: 12/05/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.  
09/423,484

Applicant(s)  
Aarons et al.

Examiner  
Wilson Lee

Art Unit  
2821

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address —

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on Oct 4, 2000
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 35 C.D. 11; 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above, claim(s) none is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claims \_\_\_\_\_ are subject to restriction and/or election requirements.

## Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some\* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \*See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

## Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 16) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). 12 20) ☐ Other: \_\_\_\_\_

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### *Specification*

1. The following guidelines illustrate the preferred layout and content for patent applications. These guidelines are suggested for the applicant's use.

#### **Arrangement of the Specification**

The following order or arrangement is preferred in framing the specification and, except for the reference to "Microfiche Appendix" and the drawings, each of the lettered items should appear in upper case, without underlining or bold type, as section headings. If no text follows the section heading, the phrase "Not Applicable" should follow the section heading:

- (a) Title of the Invention.
  - (b) Cross-References to Related Applications.
  - © Statement Regarding Federally Sponsored Research or Development.
  - (d) Reference to a "Microfiche Appendix" (see 37 CFR 1.96).
  - (e) Background of the Invention.
    1. Field of the Invention.
    2. Description of the Related Art including information disclosed under 37 CFR 1.97 and 1.98.
  - (f) Brief Summary of the Invention.
  - (g) Brief Description of the Several Views of the Drawing(s).
  - (h) Detailed Description of the Invention.
  - (I) Claim or Claims (commencing on a separate sheet).
  - (j) Abstract of the Disclosure (commencing on a separate sheet).
  - (k) Drawings.
  - (l) Sequence Listing (see 37 CFR 1.821-1.825).
2. The disclosure is objected to because it does not include any section headings.

Appropriate correction is required.

3. Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 250 words. It is important that the abstract not exceed 250 words in length since the space provided for the abstract on the computer tape used by the

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printer is limited. **The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided.** The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

4. The abstract of the disclosure is objected to because the legal phraseology such as the terms "means" shown in lines 5, 7, 9 and 12 are used. In addition, the label "Figure 4" in line 21 should be removed.

Correction is required. See MPEP § 608.01(b).

5. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

#### *Claim Objections*

6. Claims 1-13 are objected to because of the following informalities:

In claim 1, --a-- should be inserted before the terms:

"generation means" in line 2;

"means" in line 5;

"means" in line 8; and

"means" in line 10.

In addition, in line 7, "characterised" should be changed to --characterized--.

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In claim 8, --a-- should be inserted before the term "means" in line 2; "a gas discharge lamp" in line 1 should be changed to --said gas discharge lamp"; "the (T0, T1, L3)" in line 4, should be changed to --said means(T0, T1, L3)--.

In claim 9, --a-- should be inserted before the term "means" in line 2.

In claim 10, --a-- should be inserted before the term "means" in line 3; "a gas discharge lamp" in line 1 should be changed to --said gas discharge lamp".

In claim 11, --a-- should be inserted before the term "motion" in line 2.

In claim 13, "a gas discharge lamp" in line 1 should be changed to --said gas discharge lamp--; "an electronic circuit" in line 2 should be changed to --said electronic circuit--.

Moreover, in claims 2-12, all the terms "An electronic circuit" shown in line 1 should be changed to --Said electronic circuit-- or --The electronic circuit--.

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

7. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

8. Claims 1-13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Regarding Claim 1, line 5, “means by which the generation means” is not clear as to whether it is referred to an additional means other than generation means or the generation means itself; line 9, “independent from this a second series” is vague. Is the word “this” referred to “a first series of pulses” or “a second series of pulses”? Should the word “this” be deleted?

Furthermore, in claim 1, lines 3 and 5, the terms “may be” render uncertainty as to whether the claimed limitation is required or not. In line 12, “the high frequency pulse train” lacks antecedent basis.

Regarding Claim 2, line 2, “the means” is vague whether it is referred to the means for combining the first and second series of pulses, the means for producing a first series of pulses, or the generation means.

Regarding Claim 3, line 4, the term “may be” renders uncertainty as to whether the claimed limitation is required or not.

Regarding Claim 5, line 7, the term “may be” renders uncertainty as to whether the claimed limitation is required or not.

Regarding Claim 6, line 4, the term “may be” renders uncertainty as to whether the claimed limitation is required or not; line 4, “heater elements” are not clear that they are referred to the “heated electrodes” or “the contacts”? Or additional heater elements which are different from the heated electrodes and contacts?

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Regarding Claim 7, line 2, "heater element" is not clear that it is referred to one of the "heated electrodes" or "the contacts"? Or an additional heater element which is different from the heated electrode and contact?

Regarding Claim 9, line 6, the term "may be" renders uncertainty as to whether the claimed limitation is required or not.

Regarding Claim 10, line 7, the term "may be" renders uncertainty as to whether the claimed limitation is required or not.

Regarding Claim 11, line 5, the term "may be" renders uncertainty as to whether the claimed limitation is required or not.

Claims 2-13 are vague and indefinite by virtue of their dependency on claim 1.

***Claim Rejections - 35 USC § 102***

9. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

10. Claims 1-8, 12 and 13, as best understood, are rejected under 35 U.S.C. 102(b) as being anticipated by Lester (4,998,046).

Regarding Claim 1, Lester discloses an electronic circuit for controlling a gas discharge lamp(10) comprising a generation means(the whole circuit) in Figure 1 for generating a high frequency pulse train that is applied to the electrodes of the lamp to light the lamp, said generation

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means is connected to an electrical power source(Vcc), a choke(L3) to limit the current drawn by the lamp, characterized in that the circuit comprises means(Q4-Q7) for producing a first series of pulses and independent from a second series of pulses, and means(T1, T2 and L3) for combining additively the first and second series of pulses to produce the high frequency pulse train (See Figure 2).

Regarding Claim 2, Lester discloses the means(T1, T2 and L3) for combining the first and second series of pulses includes the choke(L3) which connects together the first and second series of the pulses(e.g. pulses from means 12 and 14) (See Figure 2).

Regarding Claim 3, Lester discloses the circuit having paired outputs(18 and 20), each pair of which provides a steady low voltage output which is applied to heated electrodes of the lam(10) (See Figure 1).

Regarding Claim 4, Lester discloses the means for combining the first and second series of pulses including an isolating transformer means(T1, T2 or L3) to electrically isolate the lamp from the power source (See Figure 2).

Regarding Claim 5, Lester discloses the means(16 and 40) for combining the first and second series of pulses comprising a first transformer(16) and a second transformer(40), the primaries of each transformer receiving respectively the first and second series of pulses, each of the secondaries having a tap(22, 24 and 48) which is electrically connected to the contacts(terminal which are connected to the filaments of the lamp) of the tap and each having



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another tap electrically connected to the choke(L3) (shown in a specific diagram, figure 2), so that the choke combines the secondaries and the choke(L3) in series between the contacts.

Regarding Claim 6, Lester discloses that at least one of the transformer(T2) has a secondary with a pair of taps that is electrically connected to heater elements(filaments) of the lamp (See Figure 2).

Regarding Claim 7, Lester discloses that at least one of the transformer(T2) in which the secondary tap for the heater element(filaments) is electrically connected to one of the secondary tap for the lamp contacts(See Figure 2).

Regarding Claim 8, Lester discloses a means(76, 78 and 80) for shifting the phase of the first series of pulses relative to the second series of pulses, said means(16, 40) for combining the first and second series of pulses thereby varying the width of pulses in the pulse train(See Figure 1).

Regarding Claim 12, Lester discloses the pulse train comprising pulses of both positive and negative polarity(See Col. 4, lines 23-24).

Regarding Claim 13, Lester discloses a light fitting having contacts(wiring terminals) for the gas discharge lamp and the electronic circuit(See Figure 2).

***Allowable Subject Matter***

11. Claims 9-11 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, 2<sup>nd</sup> paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

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***Information Disclosure Statement***

12. This application indicates that applicant has submitted an Information Disclosure Statement (IDS) dated 04/17/2001. However, no such form and the related reference(s) have been received. So far, only one IDS has been considered which is dated 02/14/01.

In the event that the IDS and the related references were actually filed on 04/17/01, a re-submission is respectfully encouraged.

***Remarks***

13. In the specification, page 2A has been renumbered to page 3. All the subsequent pages have been renumbered

***Conclusion***

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Asayama (6,040,662) discloses an inverter being driven by a push-pull control circuit, a transformer, a choke and a discharge lamp. Burke (4,277,726) discloses a transistorized fluorescent lamp ballast and lamp combination operates from AC line voltage comprising a transformer coupling to all filaments and inverting transistors, and providing feedback to the controller.

***Correspondence***

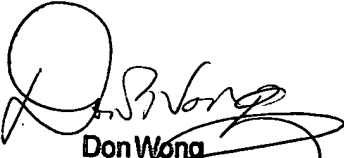
15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Wilson Lee whose telephone number is (703) 306-3426.

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16. Any inquiry of a general nature or relating to the status of this application should be directed to the Technology Center receptionist whose telephone number is (703) 308-0956.

17. Papers related to Technology Center 2800 applications may be submitted to Technology Center 2800 by facsimile transmission. Any transmission not to be considered an official response must be clearly marked "DRAFT". The Technology Center Fax Center number is (703) 308-7722 or (703) 308-7724.

WL  
11/15/01

  
Don Wong  
Supervisory Patent Examiner  
Technology Center 2800